

REMARKS

Claims 1-3, 9, and 10 are pending in the present application. Claims 1, 9, and 11 have been amended hereby. Claims 4-8, 11, and 12 have been cancelled, without prejudice or disclaimer. Favorable reconsideration is requested.

Reconsideration is respectfully requested of the rejection of Claims 9-12 under 35 U.S.C. §103(a), as being obvious over U.S. Patent No. 3,677,295 (“*Schultz*”) in view of U.S. Patent No. 4,231,440 (“*Erwin*”), or U.S. Patent No. 5,315,963 (“*Warf*”) in view of *Erwin*, or U.S. Patent No. 2,832,561 (“*Holl*”) in view of *Erwin*, or U.S. Patent No. 2,319,733 (“*Hall*”) in view of *Erwin*; of the rejection of Claims 1, 2, and 4, as being obvious over *Schultz* in view of *Erwin* and either U.S. Patent No. 6,694,749 (“*Heron*”) or U.S. Patent Publication No. 2002/0066276 (“*Kawano*”); of the rejection of Claims 1, 3, and 5-8, as being obvious over *Hall* in view of *Erwin* and either *Heron* or *Kawano*; of the rejection of Claims 1, 3, and 5-8, as being obvious over *Holl* in view of *Erwin* and either *Heron* or *Kawano*; of the rejection of Claims 5 and 6, as being obvious over U.S. Patent No. 4,925,464 (“*Rabenau*”) in view of *Erwin* and *Heron* or *Kawano*; and of the rejection of Claims 1-8, as being obvious over U.S. Patent No. 5,315,963 (“*Warf*”) in view of *Erwin* and *Heron* or *Kawano*.

Applicants respectfully traverse the aforementioned rejections for the following reasons.

Claims 4-8, 11, and 12 have been cancelled, thereby rendering the rejection thereof moot.

It is respectfully submitted that none of the cited references teach or suggest that the thrust bearing is a thrust ball bearing, and that the thrust ball bearing is arranged between the valve disc and the valve seat, and that there is no contact between the face of the valve disc and the face of the valve seat, as recited in amended independent Claims 1 and 9. The cited references all have ports that have contact between a moving valve and a stationary seat.

The presently claimed valve configuration has the advantage that all forces between the valve disc and the valve seat are carried by the thrust ball bearing, while the cited references, because of their different configurations, have only a partial transfer of forces. Further, in contrast to the cited references where there is contact between a moving valve and a stationary seat, the presently claimed valve configuration has no contact between the face of the valve disc and the face of the valve seat, resulting in a “wearless valve.”

Accordingly, it is respectfully submitted that amended independent Claims 1 and 9, and the claims depending therefrom, are patentably distinct over the cited references, alone or in any possible combination, if any.

In view of the amendments and remarks set forth above, this application is believed to be in condition for allowance which action is respectfully requested. However, if for any reason the Examiner should consider this application not to be in condition for allowance, the Examiner is respectfully requested to telephone the undersigned attorney at the number listed below prior to issuing a further Action.

Any fee due with this paper may be charged to Deposit Account No. 50-1290.

Favorable reconsideration is earnestly solicited.

Respectfully submitted,

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Docket No.: ISHI 21.053 (334786-00027)
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